



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 14-05651**

**Fac ID: 1431431877**

**DATE: 4/19/2005**

General Polymers Corp  
William Listerman  
145 Caldwell Dr  
Cincinnati, OH 45216

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

HCDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 4/19/2005  
Effective Date: 4/19/2005**

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**FINAL PERMIT TO INSTALL 14-05651**

Application Number: 14-05651  
Facility ID: 1431431877  
Permit Fee: **\$1200**  
Name of Facility: General Polymers Corp  
Person to Contact: William Listerman  
Address: 145 Caldwell Dr  
Cincinnati, OH 45216

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**145 Caldwell Dr  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Permit to install for a 300, 700 and 2,500 gallon reactors.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

General Polymers Corp  
 PTI Application: 14-05651  
 Issued: 4/19/2005

Facility ID: 1431431877

#### 14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

#### 15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

### B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	34.8
PE/PM10	5.34

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P030 - 700 gallon reactor	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(C)	
	OAC rule 3745-17-07(B)(1)	
	OAC rule 3745-17-08(B)	

**Gener****PTI A****Issued: 4/19/2005**Emissions Unit ID: **P030**

Applicable Emissions  
Limitations/Control Measures

Organic compound (OC) emissions from the reactor shall not exceed 57.6 pounds per day and 10.5 tons per year.

Particulate emissions\* (PE) from the reactor shall not exceed 5.9 pounds per day and 1.08 ton per year.

\* PE = Particulate Matter 10 microns and less (PM10)

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08(B), and 3745-31-05(C).

See term and condition A.2.b.

See term and condition A.2.e

See term and condition A.2.c.

The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation, and use of covers and a fabric filter.
- 2.b** Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- 2.c** Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- 2.d** The daily emissions limitations outlined in Section A.1 are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P006 (Shar Mixer), P007 (Hockmeyer Mixer 1), P008 (Hockmeyer Mixer 2), P010 (Hockmeyer HV-15 Mixer), P011 (Cowles Mixer), P013 (Epoxy Mixer), P017 (Hardener Tank), P021 (Tinting Area) P022 (Granule Mixer), P025 (Solvent Reclaim Still), P026 (Schold Mixer1), P027 (Schold Mixer 2), P028 (Myers Mixer), P029 (1,200 gallon epoxy clear base mixer), P030 (700 gallon reactor), P031 (300 gallon reactor), P032 (2,500 gallon reactor), T001 (6,134 gallon storage tank #1), T002 (5,086 gallon storage tank #2), T003 (5,086 gallon storage tank #3), T004 (6,000 gallon storage tank #4), T005 (6,000 gallon storage tank #5) and T006 (6,134 gallon storage tank #6) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

**B. Operational Restrictions**

1. None

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:
  - a. The name and identification of each batch of coating produced.
  - b. The OC content of each batch of coating, in pounds per gallon.
  - c. The total amount of all organic material used in each batch, in pounds.
  - d. The total combined amount of all organic material used during the month for all batches, in pounds.
  - e. The total combined monthly OC emissions, in tons per month. This calculation shall be based on the following equation:

The summation of  $[(d) \times 1.5 \text{ percent}/2000]$  for each liquid organic material used in the formulation of coatings.

These records shall be summarized at the end of each calendar year.

2. The permittee shall collect and record the following information each month for emission units P006, P007, P008, P010, P011, P013, P017, P021, P022, P025, P026, P027, P028, P029, P030, P031, and P032:
  - a. The name and identification number of each batch of coating produced containing a HAP(s).
  - b. The number of pounds of each batch of coating produced.
  - c. The individual Hazardous Air Pollutant (HAP) content for each HAP per pound of coating produced in pounds of individual HAP per pound of coating.
  - d. The total combined HAP content of each coating in pounds of combined HAPs per pound

Emissions Unit ID: P030

of coating [sum all the individual HAP contents from (c)].

- e. The total individual HAP emissions for each HAP from all coatings produced in pounds or tons per month [for each individual HAP, the summation of (b) x 1.5 percent x (c)].
- f. The total combined HAP emissions from all coatings produced in pounds or tons per month [the summation of (b) x 1.5 percent x (d)].
- g. The updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.
- h. The updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall maintain readily available, annual records on-site which specify the OC emissions from this emissions unit. These records shall be prepared by January 30 of each year and cover the previous calendar year.
4. The permit to install for this emissions unit (P030) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. A description of the parameters changed (composition of materials, new pollutants

emitted, change in stack/exhaust parameters, etc.);

- b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total organic compound emissions from this emissions unit. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 30 of each year and cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month HAPs emissions limitations in term and condition A.2.e. If no deviations occurred during the reporting period, the permittee shall state so in the report.
3. All quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General terms and conditions of this permit.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in term and condition A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

57.6 lb/day OC

Applicable Compliance Method:

The daily OC emission rate is based on the emission units potential to emit. The potential to emit was calculated by: (maximum production rate of 700 gallons per batch) x (2 batches per day) x (OC content of coatings in pounds per gallon) x (emission factor of 1.5%).

- b. Emission Limitation:

10.5 TPY OC

Applicable Compliance Method:

Compliance with the annual organic compound emission limitation in term and condition A.1. shall be based upon the record keeping requirements as specified in term and condition C.1. and C.3.

c. Emission Limitation:

5.9 lb/day PE-PM10

Applicable Compliance Method:

The daily PE-PM10 emission rate is based on the emission units potential to emit. The potential to emit was calculated by:  $[(\text{maximum production rate of 700 gallons per batch}) \times (\text{Particulate matter (PM) content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 700 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day})$ .

d. Emission Limitation:

1.08 TPY PE-PM10

Applicable Compliance Limitation:

The annual PE-PM10 emission rate is based on the emission unit's potential to emit. The emissions unit is assumed to be in compliance as long as compliance with the hourly rate is maintained. The annual PE-PM10 emission rate was calculated by:  $[(\text{maximum production rate of 700 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 700 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day}) \times (365 \text{ days per year}) / (2000)$ .

e. Emission Limitation:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

f. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).

g. Emissions Limitations:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term and condition A.2.e will be determined by the record keeping requirements specified in term and condition C.2.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, D, and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
P031 - 300 gallon reactor	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(C)	
	OAC rule 3745-17-07(B)(1)	
	OAC rule 3745-17-08(B)	

**Gener****PTI A****Issued: 4/19/2005**Emissions Unit ID: **P031**

Applicable Emissions  
Limitations/Control Measures

Organic compound (OC) emissions from the reactor shall not exceed 24 pounds per day and 4.5 tons per year.

Particulate emissions\* (PE) from the reactor shall not exceed 2.5 pounds per day and 0.46 ton per year.

\* PE = Particulate Matter 10 microns and less (PM10)

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08(B), and 3745-3105(C).

See term and condition A.2.b.

See term and condition A.2.e

See term and condition A.2.c.

The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation, and use of covers and a fabric filter.
- 2.b** Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- 2.c** Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- 2.d** The daily emissions limitations outlined in Section A.1 are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P006 (Shar Mixer), P007 (Hockmeyer Mixer 1), P008 (Hockmeyer Mixer 2), P010 (Hockmeyer HV-15 Mixer), P011 (Cowles Mixer), P013 (Epoxy Mixer), P017 (Hardener Tank), P021 (Tinting Area) P022 (Granule Mixer), P025 (Solvent Reclaim Still), P026 (Schold Mixer1), P027 (Schold Mixer 2), P028 (Myers Mixer), P029 (1,200 gallon epoxy clear base mixer), P030 (700 gallon reactor), P031 (300 gallon reactor), P032 (2,500 gallon reactor), T001 (6,134 gallon storage tank #1), T002 (5,086 gallon storage tank #2), T003 (5,086 gallon storage tank #3), T004 (6,000 gallon storage tank #4), T005 (6,000 gallon storage tank #5) and T006 (6,134 gallon storage tank #6) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

## **B. Operational Restrictions**

1. None

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:

Emissions Unit ID: P031

- a. The name and identification of each batch of coating produced.
- b. The OC content of each batch of coating, in pounds per gallon.
- c. The total amount of all organic material used in each batch, in pounds.
- d. The total combined amount of all organic material used during the month for all batches, in pounds.
- e. The total combined monthly OC emissions, in tons per month. This calculation shall be based on the following equation:

The summation of  $[(d) \times 1.5 \text{ percent}/2000]$  for each liquid organic material used in the formulation of coatings.

These records shall be summarized at the end of each calendar year.

2. The permittee shall collect and record the following information each month for emission units P006, P007, P008, P010, P011, P013, P017, P021, P022, P025, P026, P027, P028, P029, P030, P031, P032:
  - a. The name and identification number of each batch of coating produced containing a HAP(s).
  - b. The number of pounds of each batch of coating produced.
  - c. The individual Hazardous Air Pollutant (HAP) content for each HAP per pound of coating produced in pounds of individual HAP per pound of coating.
  - d. The total combined HAP content of each coating in pounds of combined HAPs per pound of coating [sum all the individual HAP contents from (c)].
  - e. The total individual HAP emissions for each HAP from all coatings produced in pounds or tons per month [for each individual HAP, the summation of  $(b) \times 1.5 \text{ percent} \times (c)$ ].
  - f. The total combined HAP emissions from all coatings produced in pounds or tons per month [the summation of  $(b) \times 1.5 \text{ percent} \times (d)$ ].

- g. The updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.
- h. The updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.

- 3. The permittee shall maintain readily available, annual records on-site which specify the OC emissions from this emissions unit. These records shall be prepared by January 30 of each year and cover the previous calendar year.
- 4. The permit to install for this emissions unit (P031) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

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**PTI Application: 14-05651**  
**Issued**

**Facility ID: 1431431877**

Emissions Unit ID: **P031**

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee

shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

- a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total organic compound emissions from this emissions unit. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 30 of each year and cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month HAPs emissions limitations in term and condition A.2.e. If no deviations occurred during the reporting period, the permittee shall state so in the report.
3. All quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General terms and conditions of this permit.

#### E. Testing Requirements

1. Compliance with the emission limitations in term and condition A.1. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
24 lb/day OC  
  
Applicable Compliance Method:  
  
The daily OC emission rate is based on the emission units potential to emit. The potential to emit was calculated by: (maximum production rate of 300 gallons per batch) x (2 batches per day) x (OC content of coatings in pounds per gallon) x (emission factor of 1.5%).
  - b. Emission Limitation:  
  
4.5 TPY OC  
  
Applicable Compliance Method:  
  
Compliance with the annual organic compound emission limitation in term and condition A.1. shall be based upon the record keeping requirements as specified in term and condition C.1. and C.3.
  - c. Emission Limitation:

2.5 lb/day PE-PM10

Applicable Compliance Method:

The daily PE-PM10 emission rate is based on the emission units potential to emit. The potential to emit was calculated by:  $[(\text{maximum production rate of 300 gallons per batch}) \times (\text{Particulate matter (PM) content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 300 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day})$ .

d. Emission Limitation:

0.46 TPY PE-PM10

Applicable Compliance Limitation:

The annual PE-PM10 emission rate is based on the emission unit's potential to emit. The emissions unit is assumed to be in compliance as long as compliance with the hourly rate is maintained. The annual PE-PM10 emission rate was calculated by:  $[(\text{maximum production rate of 300 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 300 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day}) \times (365 \text{ days per year}) / (2000)$ .

e. Emission Limitation:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

f. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).

g. Emissions Limitations:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term and condition A.2.e will be determined by the record keeping requirements specified in term and condition C.2.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, D, and E.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	<u>Applicable Rules/Requirements</u>	
P032 - 2500 gallon reactor	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-08(B)
		OAC rule 3745-17-07(A)
		OAC rule 3745-17-11(B)
	OAC rule 3745-31-05(C)	
	OAC rule 3745-17-07(B)(1)	

Applicable Emissions  
 Limitations/Control Measures

Organic compound (OC) emissions from the reactor shall not exceed 108 pounds per day and 19.8 tons per year.

Particulate emissions\* (PE) from the reactor shall not exceed 20.8 pounds per day and 3.8 ton per year.

\* PE = Particulate Matter 10 microns and less (PM10)

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1), 3745-17-08, and 3745-31-05(C).

See terms and conditions A.2.b. and B.1.

See term and condition A.2.e

See term and condition A.2.c.

The permittee shall minimize or eliminate visible particulate emissions by the use of a cover and dust collector.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emissions limitations, opacity limitation, production limitation and use of covers and a fabric filter.
- 2.b** Visible particulate emissions from any stack shall not exceed 10 percent opacity, as a six-minute average.
- 2.c** Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as specified by rule.
- 2.d** The daily PM-PM10 emissions limitations outlined in Section A.1 are based upon the emissions unit's Potential to Emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.
- 2.e** The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P006 (Shar Mixer), P007 (Hockmeyer Mixer 1), P008 (Hockmeyer Mixer 2), P010 (Hockmeyer HV-15 Mixer), P011 (Cowles Mixer), P013 (Epoxy Mixer), P017 (Hardener Tank), P021 (Tinting Area) P022 (Granule Mixer), P025 (Solvent Reclaim Still), P026 (Schold Mixer1), P027 (Schold Mixer 2), P028 (Myers Mixer), P029 (1,200 gallon epoxy clear base mixer), P030 (700 gallon reactor), P031 (300 gallon reactor), P032 (2,500 gallon reactor), T001 (6,134 gallon storage tank #1), T002 (5,086 gallon storage tank #2), T003 (5,086 gallon storage tank #3), T004 (6,000 gallon storage tank #4), T005 (6,000 gallon storage tank #5) and T006 (6,134 gallon storage tank #6) shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has existing records to demonstrate compliance with this limit upon permit issuance.

**B. Operational Restrictions**

1. The maximum daily production rate of polyurethane in this emission unit shall not exceed 2500 gallons per day.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information for this emissions unit on a daily basis:
  - a. The name, identification and quantity, in gallons, of each batch of coating produced.
  - b. The OC content of each batch of coating, in pounds per gallon.
  - c. The total amount of all organic material used in each batch, in pounds.
  - d. The total combined amount of all organic material used during the day for all batches, in pounds.
  - e. The total combined monthly OC emissions, in tons per month. This calculation shall be based on the following equation:

The summation of [(d) x 1.5 percent/2000] for each liquid organic material used in the formulation of coatings.

These records shall be summarized at the end of each calendar year.

2. The permittee shall collect and record the following information each month for emission units P006, P007, P008, P010, P011, P013, P017, P021, P022, P025, P026, P027, P028, P029, P030, P031, P032:
  - a. The name and identification number of each batch of coating produced containing a HAP(s).
  - b. The number of pounds of each batch of coating produced.
  - c. The individual Hazardous Air Pollutant (HAP) content for each HAP per pound of coating produced in pounds of individual HAP per pound of coating.

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- d. The total combined HAP content of each coating in pounds of combined HAPs per pound of coating [sum all the individual HAP contents from (c)].
- e. The total individual HAP emissions for each HAP from all coatings produced in pounds or tons per month [for each individual HAP, the summation of (b) x 1.5 percent x (c)].
- f. The total combined HAP emissions from all coatings produced in pounds or tons per month [the summation of (b) x 1.5 percent x (d)].
- g. The updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.
- h. The updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months. The summations shall also include the HAP emissions from T001 - T006.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a line-by-line basis.

3. The permittee shall maintain readily available, annual records on-site which specify the OC emissions from this emissions unit. These records shall be prepared by January 30 of each year and cover the previous calendar year.
4. The permit to install for this emissions unit (P032) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: xylene

TLV (ug/m3): 434,000

Maximum Hourly Emission Rate (lbs/hr): 1.53

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 1,167

MAGLC (ug/m3): 10,333

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in the "Air Toxic Policy" include the following:

- a. Changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will satisfy the Air Toxic Policy:"

Emissions Unit ID: **P032**

- a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. Documentation of it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. When the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which specify the total organic compound emissions from this emissions unit. These reports shall be submitted to the Hamilton County Department of Environmental Services by January 30 of each year and cover the previous calendar year.
2. The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the rolling, 12-month HAPs emissions limitations in term and condition A.2.e. If no deviations occurred during the reporting period, the permittee shall state so in the report.
3. All quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General terms and conditions of this permit.
4. The permittee shall submit deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the daily polyurethane production limitation in term and condition B.1. The deviation (excursion) report shall be submitted within 45 days after the exceedance occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations in term and condition A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

108 lb/day OC

Applicable Compliance Method:

The daily OC emission rate limitation is based on the emission units limited production of polyurethane and the potential to emit for the production of four batches of epoxy per day.

The potential to emit was calculated by: (maximum production rate of 2500 gallons per batch) x (4 batches of epoxy per day) x (OC content of coatings in pounds per gallon) x (emission factor of 1.5%).

b. Emission Limitation:

19.8 TPY OC

Applicable Compliance Method:

Compliance with the annual organic compound emission limitation in term and condition A.1. shall be based upon the record keeping requirements as specified in term and condition C.1. and C.3.

c. Emission Limitation:

20.8 lb/day PE-PM10

Applicable Compliance Method:

The daily PE-PM10 emission rate is based on the emission units potential to emit. The potential to emit was calculated by:  $[(\text{maximum production rate of 2500 gallons per batch}) \times (\text{Particulate matter (PM) content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 2500 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day})$ .

d. Emission Limitation:

3.8 TPY PE-PM10

Applicable Compliance Limitation:

The annual PE-PM10 emission rate is based on the emission unit's potential to emit. The emissions unit is assumed to be in compliance as long as compliance with the hourly rate is maintained. The annual PE-PM10 emission rate was calculated by:  $[(\text{maximum production rate of 2500 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (5\% \text{ fugitive})] + [(\text{maximum production rate of 2500 gallons per batch}) \times (\text{PM content of coatings in pounds per gallon}) \times (1.0\% \text{ AP-42 emission factor}) \times (95\% \text{ collection efficiency}) \times (1-99\% \text{ control efficiency})] \times (4 \text{ batches per day}) \times (365 \text{ days per year}) / (2000)$ .

e. Emission Limitation:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

f. Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20 percent opacity, as a three-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, and the procedures specified in OAC rule 3745-17-03(B)(3).

g. Emissions Limitations:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term and condition A.2.e will be determined by the record keeping requirements specified in term and condition C.2.

2. Compliance with the daily polyurethane production limitation in term and condition B.1 shall be determined by the record keeping requirements specified in term and condition C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C.1 - C.3, D, and E.